



MISSION CRITICAL FIBER OPTIC SOLUTIONS

Booklet



AS9100C, ISO9001, ITAR CERTIFIED



FOREWORD

Timbercon has been a leader in engineered fiber optic solutions for over two decades.

- *One-stop custom fiber optic solutions, from development to delivery*
- *High-quality custom fiber optic cable assemblies and equipment*
- *Quality and delivery performance far exceeding industry standards*
- *The market leader in domestically-sourced custom fiber optic solutions*

When high reliability and performance is your priority, choose Timbercon manufactured fiber optic products and services.

CONTACT

20245 SW 95th Avenue
Tualatin, OR 97062

Ph: 503.827.8141

Toll Free: 800.221.6992

Fax: 503.228.6747



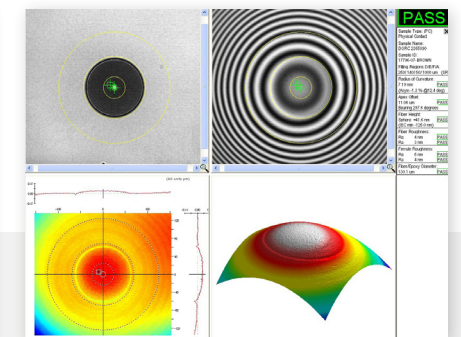
Timbercon manufactures fiber optic products that are used in a variety of military and aerospace applications that require rigorous testing and certification for harsh environments. We utilize high quality fiber optic components to ensure reliability and unsurpassed performance in the field. Timbercon has the expertise and experience to develop, manufacture, install and maintain the ideal fiber optic product for your application.

- *Engineered to be precise, rugged, and reliable*
- *High-quality components*
- *Designed and assembled by experienced engineers*
- *Manufactured in the USA*
- *Completely customizable to your specific conditions and requirements*
- *Strict testing and certification processes (AS9100D) for performance, durability and longevity in the field*
- *Built for harsh environment, box-to-box and behind-the-wall applications*



CAPABILITIES

Our range of capabilities provides the seamless transition of products from development to full-scale production, reducing time-to-market and total cost. We focus on high quality custom solutions.



PRODUCT DESIGN

- *Solutions that optimize cost of ownership while balancing price, performance and schedule*
- *Engineering services to define a custom product and development plan*
- *3D modeling utilizing SolidWorks, 3D printing, precision fiber processing and testing*
- *Mechanical, electronic and optical design services*
- *Rapid prototyping capabilities*

CONTRACT MANUFACTURING

- *Advanced fiber optic engineering*
- *Final product, sub-level and integrated electrical and optical manufacturing*
- *New product introduction and test protocol development*
- *Ability to build product to customer specifications*
- *Custom packaging and labeling*
- *Repair and replacement services*

TEST & ANALYSIS

- *Leading edge optical metrology and interferometry*
- *Specialized performance and environmental tests, including tensile, load, temperature and humidity*
- *Testing options ranging from simple insertion loss testing to root cause failure analysis*
- *Expedited diagnostic and recertification services*

Timbercon provides a wide array of fiber optic design, manufacturing and testing capabilities. We partner with our customers to enable solutions for harsh environment, mission critical challenges.

RUGGEDIZED SOLUTIONS



Hermaphroditic Connectors

- Compatible with SMPTE standard 328M-2001
- Genderless connectors for mating multiple cables in ganged assembly configurations for deployable systems
- Wall-mount and jam-nut receptacles available
- Corrosion, shock and thermal resistant to MIL standards
- Available in aluminum and stainless steel connector bodies
- Water pressure sealing up to 25 psi for 48 hours



MIL-DTL-83526 TFOCA-II

- Incorporated, removable front key plate
- Optional key ring positions
- Available in plated aluminum or stainless steel
- Improved cable strain relief
- Meets MIL-STD-1344 vibration specifications (Method 2500.1) and EIA/TIA-455-14 (Condition A) shock requirements



MIL-DTL-83526/20 & 21 Expanded Beam

- Rugged, sealed MIL-PRF-83526/20 & 21 compliant connectors for demanding environments
- Improves loss performance from debris and dust
- Hermaphroditic design helps daisy-chaining for ease of deployment
- Lack of connector physical contact allows for thousands of mating cycles without wear
- One piece insert design makes cleaning easy



Deployable Reels

- Timbercon's deployable reels offer a number of advantages for applications requiring long fiber runs, temporary connections or easy storage and transportation of long, bulky cable assemblies.
- Durable polymer, carbon steel, stainless steel and aluminum reels meant for harsh environments
 - Can house up to 1.5 km of cable
 - Suitable for virtually any connector type

MIL-SPEC FIBER OPTIC CABLES



MIL-DTL-38999

- Up to 37 channel configurations
- Low insertion loss
- Singlemode and multimode termini
- Fiber and copper hybrid versions available
- Tight tolerances
- Ceramic connector ferrules
- Ruggedized packaging
- Precise optical alignment



MIL-PRF-28876

- Up to 31 channel configurations
- Universal standard connector for Navy applications
- Meets MIL-S-901 Grade A medium shock requirement
- Manufactured to exact tolerances to reduce radial misalignment and insertion loss



MIL COTS ST

- Durable all-metal body
- Harsh environment, fungus resistant, and shock resistant
- Meets shock requirements of MIL-C-83522



MIL Termini

- Pre-radius zirconia ferrule tip
- Captivated split zirconia sleeves
- Multiple configurations and sizes available
- Integrated environmental seal on each terminus
- Qualified to MIL-PRF-9504B
- LuxCis® termini
- M29504-4/5
- M29504-14/15
- MIL 1.25
- HD SZ 22



TIMBERCON CLEANING KITS

Maintaining a clean connection or mating point is critical to the performance and proper function of any fiber optic link. Timbercon cleaning kits provide comprehensive solutions for cleaning, preparing and maintaining fiber optic connectivity products.

- High quality supplies for effective cleaning
- Multiple products and methods for properly cleaning virtually any optical connection
- Available replacement supplies for easy kit replenishment
- Several kit sizes and sets available to service a range of application requirements

Cleaning Kit Contents



Cleaning Swabs



Endface Cleaning System



Cleaning Solvent



Hydosorb Wipes



Flexlight

CUSTOM OVERMOLDING

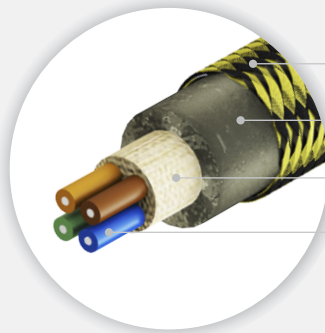
A variety of customer requirements have driven the need to offer molded components. Timbercon can design and produce the required tooling and mold these solutions in-house. An assortment of material types are available and render different degrees of flexibility, texture and density.



- Rugged fan-out transitions
- Flanged connectors
- Backshells
- Optical and electrical potting
- Overmolding for up to 24-fiber channels
- Multiple transition styles provide flexible mounting options
- 100% optically tested to ensure reliability and performance
- Custom molded shapes designed to fit your equipment
- Custom branded transitions for product and company names
- Molded strain relief

BRAIDED JACKETING

Our custom braided jacketing allows you to bundle multiple channels together for improved cable management. This specially braided jacketing aids in abrasion resistance, cable identification and environmental protection.



- Braided sheath
- Cable jacket
- Kevlar® strength member
- Fiber subunits

- Increased abrasion resistance and environmental protection
- Available in stainless steel, copper, monofilament, polypropylene, Kevlar®, Nomex® and nylon
- Multiple color combinations available

